

CARDIAC EMERGENCIES

Shock (Non-Traumatic) With or Without Pulmonary Edema C-1

PRIORITIES

ABCs

Identify signs of shock

Determine if has shock with or without pulmonary edema

Assure an advanced life support response

Shock With or Without Pulmonary Edema

Signs and symptoms of shock with dry lungs, flat neck veins. May have poor skin turgor, history of GI bleeding, vomiting, diarrhea. If signs and symptoms include wet lungs, ankle edema or distended neck veins, consider pulmonary edema.

1. Ensure a patent airway
2. Be prepared to support ventilations with appropriate airway adjuncts
3. **OXYGEN** therapy - Begin oxygen at 10 liters/minute by mask. If there is a history of COPD, observe for respiratory depression and support respirations as needed. DO NOT withhold oxygen from a patient in cardiorespiratory distress because of a history of COPD
4. Elevate legs, lower head (Shock position), or position of comfort if tolerated
5. Keep the patient warm but don't overheat

CARDIAC EMERGENCIES

Cardiac Arrest (Ventricular Fibrillation) C-3

PRIORITIES

ABCs

Assure an advanced life support response

Reassess respirations and pulse frequently

History if possible

Age, sex, weight

estimated time patient last seen breathing

down time with CPR

symptoms prior to collapse

Cardiopulmonary Arrest - Basic Therapy

No spontaneous pulse or respirations, non-traumatic setting.

1. Initiate CPR
 - ➡ Maintain airway with manual airway techniques
 - ➡ Insert oropharyngeal/nasopharyngeal airway and ventilate with a bag/valve-mask
2. Consider
 - ➡ Victims suffering from hypothermia often look dead when they are still salvageable
 - ➡ All near drowning victims should be resuscitated. People who have been submerged in cold water for a long time may be salvageable

Cardiopulmonary Arrest - Early Defibrillation Protocol (Automated Defibrillator)

1. Continue CPR until defibrillator is ready
2. Remove patient's clothing to expose the chest to the waist line
3. Activate the defibrillator unit, ensure electrodes are placed appropriately. Left side midchest below the left under arm and right upper chest just below the right collarbone
4. Have the defibrillator evaluate the ECG rhythm and shock the patient up to three times in a row
5. When a 15-second interval passes following defibrillation, assess pulse and respirations, if vital signs are not present resume CPR.
6. If after resuming CPR, ALS providers are not on scene within 2 minutes, continue to treat ventricular fibrillation with up to three more shocks in a row.

Special Note:

It is recommended that Early Defibrillator Technicians do not defibrillate confirmed asystole or other pulseless organized rhythms.

CARDIAC EMERGENCIES

Chest Pain C-10

PRIORITIES

ABCs

Degree of distress? Shock?

Administer oxygen

Assure an advanced life support response

History

Collect medications

Chest Pain Suspicious of Cardiac Origin

Substernal pain, discomfort or tightness radiating to jaw, left shoulder or arm, nausea, diaphoresis, dyspnea, anxiety.

1. **OXYGEN** therapy - Begin oxygen at 6 liters/minute by nasal cannula or 10 liters/minute by mask. If there is a history of COPD, observe for respiratory depression and support respirations as needed. DO NOT withhold oxygen from a patient in cardiorespiratory distress because of a history of COPD
2. Reassure the patient and place in a position of comfort
3. Loosen tight clothing
4. Discourage patient movement, lift patient on to stretcher
5. If the patient wants to take their own medication allow them to do so.

Special Note:

If the patient wants to take their own nitroglycerine, allow the patient to do so. It is recommended that a patient with a blood pressure less than 110 mm/Hg be advised not to take medication because of the risks associated with hypotension. Blood pressure, pulse, and respirations must be checked each time a patient takes their own medication. If the blood pressure drops dramatically, or the patient exhibits a decreased level of consciousness, lay the patient down and elevate legs. Counsel the patient to not take any more medications until ALS arrive on scene or base hospital physician can be consulted.

6. If signs of shock, see SHOCK (Non-Traumatic)

CARDIAC EMERGENCIES

Hypertensive Emergencies C-12

PRIORITIES

ABCs

Airway maintenance, support ventilation, prevent aspiration

Identify and document progression of neurological deficits

Motor weakness

Speech disturbances, headache, visual problems

Altered mental status

Assure an advanced life support response

Obtain a complete patient history

Hypertensive Emergencies

An elevation of blood pressure associated with neurologic deficit, altered level of consciousness, chest pain, pulmonary edema, headache, blurred vision, or pregnancy.

1. Ensure a patent airway, suction as needed
2. Oxygen therapy - Begin oxygen at 6 liters/minutes by nasal cannula or 10 liters/minute by mask. If there is a history of COPD, observe for respiratory depression and support respirations as needed. **DO NOT** withhold oxygen from respiratory distress because of a history of COPD.
3. Sit patient up or elevate head if awake. Place on left side if patient has an altered mental status, a decreased gag reflex, or if a neurologic deficit is present.
4. Monitor and record vital signs with neurological checks frequently. Take a series of blood pressure measurements (at least every five minutes until ALS transport arrives).
5. Minimize stimulation and noise. Keep patient calm. Darken patient area if possible.
6. Anticipate and treat appropriately for seizures

NEUROLOGIC EMERGENCIES

Coma/Altered Level of Consciousness N-1

PRIORITIES

ABCs

Determine which cause of altered mental status best fits patient's signs, symptoms, and history. (Bystander, history of diabetes, depression, fever, drug use, daily medications)

Consider c-spine precautions

Administer oxygen

Assure advanced life support response

Identify and document neurological deficits

Obtain a complete patient history

Coma/Altered Level of Consciousness

History unclear; may be confused, nauseated, vomiting, fruity odor on breath.

1. ABCs
 - a. Insert oropharyngeal/nasopharyngeal airway as tolerated.
 - b. assist ventilations as needed
 - c. suction as necessary
2. Immobilize the spine if trauma or the suspicion of trauma
3. Oxygen therapy - Begin oxygen at 6 liters/minutes by nasal cannula or 10 liters/minute by mask. If there is a history of COPD, observe for respiratory depression and support respirations as needed. DO NOT withhold oxygen from respiratory distress because of a history of COPD.
4. Patient position:
 - a. no trauma and good gag reflex - position of comfort and choice of patient.
 - b. no trauma and decreased gag reflex - position on left side.
 - c. head trauma - position supine with long backboard if no airway problems are suspected
5. If patient has h_x diabetes and is conscious with a good gag reflex, consider oral glucose.

Special Note:

DO NOT assume alcohol intoxication as primary cause. All patients with altered level of consciousness should be treated and transported to a facility where a complete medical evaluation can occur.

NEUROLOGIC EMERGENCIES

Seizures N-3

Priorities

ABCs

Airway maintenance, support respiration, prevent body injury

Determine degree of physiologic distress, possible cause of seizure

Assess and document course of seizure

Assure an advance life support response

Obtain patient history - note number of seizures and time interval of seizure activity

General Seizures

Abnormal jerking movements followed by a period of unconsciousness (post-ictal period). Usually history of prior seizures, on medication, or alcohol withdrawal.

1. Ensure a patent airway (use bite block if it can be easily inserted)
 - a. Insert oropharyngeal/nasopharyngeal airway as tolerated.
 - b. assist ventilations as needed
 - c. suction as necessary
2. Be prepared to support ventilation with appropriate airway adjuncts
3. **OXYGEN** therapy - Begin oxygen at 6 liters/minute by nasal cannula or 10 liters/minute by mask. If there is a history of COPD, observe for respiratory depression and support respirations as needed. **DO NOT** withhold oxygen from a patient in cardiorespiratory distress because of a history of COPD
4. Protect patient, especially the head, from injury by placing padding appropriately. Move objects away from patient. Do not forcibly restrain the patient.
5. Immobilize the spine in trauma or the suspicion of trauma
6. Position on left side if no trauma
7. Consider:
 - Cooling with moist towels if febrile
 - Diabetic hypoglycemia
 - Protecting the patient from further injury
 - Providing for patient privacy if possible

NEUROLOGIC EMERGENCIES

Acute Cerebrovascular Accident (Stroke)

PRIORITIES

ABCs

Airway maintenance, support ventilation, prevent aspiration

Identify and document progression of neurological deficits

Motor weakness

Speech disturbances, headache, visual problems

Altered mental status

Assure an advanced life support response

Obtain a complete patient history

Acute Cerebrovascular Accident (Stroke)

Sudden onset of weakness, paralysis, confusion, speech disturbances, may be associated with headache.

1. Ensure a patent airway, suction as needed
 - a. Insert oropharyngeal/nasopharyngeal airway as tolerated.
 - b. assist ventilations as needed
 - c. suction as necessary
2. Be prepared to support ventilation with appropriate airway adjuncts
3. **OXYGEN** therapy - Begin oxygen at 6 liters/minute by nasal cannula or 10 liters/minute by mask. If there is a history of COPD, observe for respiratory depression and support respirations as needed. **DO NOT** withhold oxygen from a patient in cardiorespiratory distress because of a history of COPD.
4. Position patient upright, if conscious, unless hypotensive. If unconscious or exhibiting signs of a decreased level of consciousness, place patient on affected side and support and protect paralyzed limbs. If hypotensive, place supine with legs elevated.
5. Monitor vital signs
6. Give nothing by mouth; remove all dentures and false teeth if possible
7. Avoid unnecessary movement
8. Keep patient warm, but do not overheat

NEUROLOGIC EMERGENCIES

Syncope/Near Syncope N-5

Priorities

ABCs

Assess level of consciousness

Evaluation of:

regular pulse, precipitating factors

associated symptoms, medical history/medications

progression of neurological deficits

altered mental status

Assure an advanced life support response

Syncope/Near Syncope

Episode of brief loss of consciousness or dizziness; often positional following defecation or early pregnancy. May have cardiac history.

1. Ensure a patent airway (Suction as necessary)
2. Be prepared to support ventilation with appropriate airway adjuncts
3. **OXYGEN** therapy - Begin oxygen at 6 liters/minute by nasal cannula or 10 liters/minute by mask. If there is a history of COPD, observe for respiratory depression and support respirations as needed. **DO NOT** withhold oxygen from a patient in cardiorespiratory distress because of a history of COPD
4. Position patient upright, if conscious, unless hypotensive. If hypotensive, place supine with legs elevated.
5. Monitor and record vital signs frequently

MEDICAL EMERGENCIES

Abdominal Pain M-1

PRIORITIES

ABCs

Degree of distress? Shock?

Administer oxygen

Assure an advanced life support response

History

Collect medications

Abdominal Pain (Not in Shock)

Mild to moderate pain, able to be comfortable, no signs of shock.

1. Ensure a patent airway (Suction as necessary)
2. Be prepared to support ventilation with appropriate airway adjuncts
3. **OXYGEN** therapy - Begin oxygen at 6 liters/minute by nasal cannula or 10 liters/minute by mask. If there is a history of COPD, observe for respiratory depression and support respirations as needed. **DO NOT** withhold oxygen from a patient in cardiorespiratory distress because of a history of COPD
4. Position of comfort if conscious, usually on either side with knees drawn up
5. Nothing by mouth
6. Consider:
 - ➡ Anticipate vomiting - save sample
 - ➡ GI bleeding (history of dark tarry stools or vomiting coffee ground emesis or frank blood)

Abdominal Pain in Shock

Moderately severe to severe pain, restless, unable to find position of comfort unless absolutely still or signs of shock.

1. See SHOCK (Non-Traumatic) C-1

MEDICAL EMERGENCIES

Anaphylaxis (Acute Allergic Reaction) M-5

PRIORITIES

ABCs

Respiratory Assessment (The more rapid the onset, the more severe the reaction)

Identify anaphylactic shock (anxiety, difficult swallowing, dyspnea, wheezing, hypotension)

Assure advanced life support response

Attempt to prevent or inhibit absorption of the allergy causing agent or venom.

Anaphylactic Shock

The presence of hives, airway swelling or history of exposure to allergen with shortness of breath, wheezing, rapid pulse, hypotension, anxiety, tightness in the chest.

1. Ensure a patent airway (Suction as necessary)
2. Be prepared to support ventilation with appropriate airway adjuncts
3. **OXYGEN** therapy - Begin oxygen at 6 liters/minute by nasal cannula or 10 liters/minute by mask. If there is a history of COPD, observe for respiratory depression and support respirations as needed. **DO NOT** withhold oxygen from a patient in cardiorespiratory distress because of a history of COPD
4. Lay patient flat and elevate legs if able to tolerate
5. Consider:
 - Assist patient in administering his/her injectable or oral medications if available
 - If stinger is still in place remove by scraping stinger out
 - If exhibiting signs of shock, See SHOCK (Non-Traumatic)
 - Restrict movement of involved extremity and attempt to keep affected extremity at or below the level of the heart
 - If envenomation see ENVENOMATION
 - Ascertain if animal or venomous creature is available to be safely transported to the patient receiving facility
 - Do not apply cooling measures to snake bites

MEDICAL EMERGENCIES

Poisons/Drugs M-6

PRIORITIES

Approach patients after assessing appropriate safety for personnel

ABCs

Airway maintenance

Determine type, amount, and time material was absorbed by patient

Bring in the container and/or label

Toxic Ingestions and Exposures (Basic Therapy)

1. Ensure a patent airway, suction as needed
 - a. Insert oropharyngeal/nasopharyngeal airway as tolerated.
 - b. assist ventilations as needed
 - c. suction as necessary
2. Be prepared to support ventilation with appropriate airway adjuncts
3. **OXYGEN** therapy - Begin oxygen at 6 liters/minute by nasal cannula or 10 liters/minute by mask. If there is a history of COPD, observe for respiratory depression and support respirations as needed. DO NOT withhold oxygen from a patient in cardiorespiratory distress because of a history of COPD
4. Position of comfort if conscious. If depressed level of consciousness position on left side
5. Consider:
 - ➡ Being careful not to contaminate yourself and others, remove contaminated clothing, brush off powders, wash off liquids
 - ➡ If patient is fully consciousness and alert, do not attempt to dilute ingested substances with water or milk unless an ALS unit arrives or landline consultation with base hospital/poison control center
 - ➡ Skin contact with toxic agent: Remove patient from contact with source. Remove clothing from patient if contaminated. If the contact substance is a powder, brush off first, then wash off; otherwise wash copiously with water as indicated (up to 20 minutes, or more may be indicated)
 - ➡ Locate containers or types of substance, for transport to hospital for identification, (if safe to handle)
 - ➡ Monitor vital signs and level of consciousness. Watch for seizures.
 - ➡ Observe patient at all times. Never leave a patient alone.

RESPIRATORY EMERGENCIES

Airway Obstruction R-1

PRIORITIES

ABCs

Degree of distress? Shock?

If complete airway obstruction, proceed to obstructed airway treatment

Assure advanced life support response

Conscious Patient - Able to Speak

1. Leave the patient alone; offer reassurance.
2. Encourage coughing.
3. Offer **OXYGEN** Therapy via nasal cannula.
4. Frequent suctioning as needed to control secretions.
5. Once EMS transport arrives, begin transport ASAP; avoid agitating the patient.

Conscious Patient - Unable to Cough or Speak

1. Ask the patient if s/he is choking.
2. Administer abdominal thrusts until the foreign body is expelled or until the patient becomes unconscious
3. After obstruction is relieved, reassess the airway, lung sounds, skin color and vital signs.
4. Oxygen therapy as indicated by clinical condition.

Adult Patient Who Becomes Unconscious

1. Roll patient onto back; open airway (tongue-jaw lift); perform a finger sweep
2. Attempt bag-valve mask ventilations; if unable to ventilate, perform 6-10 additional abdominal thrusts
3. Perform a finger sweep and attempt to ventilate
4. If still obstructed, repeat the above sequence

Patient Found Unconscious

1. Roll the patient onto back; open airway (tongue-jaw lift)
2. Follow the sequence for adult who becomes unconscious

Child with Complete Obstruction

1. In infants < 1 year old, start with four (4) back blows with the infant straddled over the arm in the face down position, with the head lower than the trunk
2. Administer back blows, delivering the blows with the heel of the hand
3. Turn the infant over and deliver four (4) chest compressions in a manner similar to CPR (but slower). Finger sweeps are to be avoided unless the foreign body can be seen and plucked (with the fingers) from the infant's mouth
4. In children > 1 year of age, treatment follows the same sequence as in the adult except that finger sweeps are to be avoided unless the foreign body can be seen and plucked (with the fingers) from the child's mouth

RESPIRATORY EMERGENCIES

Croup/Epiglottitis R-2

PRIORITIES

ABCs

Determine degree of distress

Respiratory rate > 30; use of accessory muscles; dusky blue color

Inadequate ventilation; depressed level of consciousness

Maintain airway, provide oxygen and ventilatory support

Early transport (after initial therapy) after an EMS transporting unit arrives

May be the presence of upper respiratory infection or "seal-bark" type of cough, sore throat, fever, noisy breathing or drooling.

1. Offer reassurance; if patient is a child, allow parent to hold child if the presence of the parent has a calming effect on the child
2. **OXYGEN** therapy high flow. All parent to hold oxygen mask if patient is a child
3. Keep child in upright position and do not attempt to visualize throat
4. If patient deteriorates, or becomes completely obstructed, positive pressure ventilation via bag-mask should be attempted.
5. Consider:
 - Do not put anything into a child's mouth under any circumstances if epiglottitis is suspected. Such stimulation is likely to cause laryngospasm and/or increased airway obstruction.
 - Minimize stimulation

RESPIRATORY EMERGENCIES

Acute Respiratory Distress R-3

PRIORITIES

ABCs

Determine degree of distress

Respiratory rate > 30; use of accessory muscles; dusky blue color

Inadequate ventilation; depressed level of consciousness

Maintain airway, provide oxygen and ventilatory support

Ensure an advanced life support response

Early transport after an EMS transporting unit arrives

Respiratory Distress

Increased respiratory rate, sensation of difficulty breathing not clearly due to clinical entities specified below. May be due to pneumonia, inhalation of toxic substances, pulmonary blood clot. If patient has history of chronic obstructive pulmonary disease, may have wheezing, coughing, decreased breath sounds and barrel shaped chest. If history of asthma, wheezing and coughing may be evident.

1. Ensure a patent airway (Suction as necessary)
2. Be prepared to support ventilation with appropriate airway adjuncts
3. **OXYGEN** therapy - Begin oxygen at 6 liters/minute by nasal cannula or 10 liters/minute by mask. If there is a history of COPD, observe for respiratory depression and support respirations as needed. DO NOT withhold oxygen from a patient in cardiorespiratory distress because of a history of COPD
4. Position of comfort if conscious. If depressed level of consciousness position on left side
5. Consider:
 - ➡ Limit physical exertion
 - ➡ Loosen tight clothing

RESPIRATORY EMERGENCIES

Respiratory Arrest R-4

PRIORITIES

ABCs

Determine degree of distress

Respiration absent, dusky blue color

depressed level of consciousness

Maintain airway, provide oxygen and ventilatory support

Ensure an advanced life support response

Respiratory Arrest

Absence of spontaneous ventilations without cardiac arrest, consider narcotic overdose.

1. Ensure a patent airway (Suction as necessary)
2. Be prepared to support ventilation with appropriate airway adjuncts
3. Oxygen therapy - (15L/min) via BVM

RESPIRATORY EMERGENCIES

Toxic Gas Inhalation R-9

PRIORITIES

ABCs

Determine degree of distress

Respiratory rate > 30; use of accessory muscles; dusky blue color

Inadequate ventilation; depressed level of consciousness

Maintain airway, provide oxygen and ventilatory support

Ensure an advanced life support response

Field treatment limited, CODE 3 transport is indicated for severe respiratory distress

Toxic Gas Inhalation

History of respiratory distress caused by inhalation of toxic gases. Suspect carbon monoxide with history of fire in an enclosed space, symptoms of headache, dizziness which may be associated with cherry-red coloration of mucus membranes (late sign).

1. Remove patient from toxic environment with attention to safety of rescue personnel
2. **OXYGEN** - high flow. If Carbon Monoxide suspected, consider 100% via non-rebreathing mask

PEDIATRIC CARDIAC EMERGENCIES

Cardiorespiratory Emergencies P-1

PRIORITIES

ABC

90% of pediatric arrest are respiratory - give special attention to the airway and breathing

Assure an advanced life support response

Upon arrival of an EMS transport unit assist with early transport

Pediatric Cardiopulmonary Arrest - Basic Therapy

No spontaneous pulses or respirations in a non-traumatic setting.

1. Basic CPR with basic airway management
2. Considerations
 - ➡ Ensure oxygen is being administered
 - ➡ A parent or guardian should accompany patient whenever possible
 - ➡ Do not hyperextend the neck when opening the airway of an infant or small child as this may occlude the airway

Sudden Infant Death Syndrome

SIDS is the sudden and unexpected death of a seemingly health infant which remains unexplained sometimes even after autopsy. SIDS is the leading cause of death in infants between the ages of 2 weeks up to 2 years of age.

1. Basic CPR with basic airway management
2. Provide support for the family; suggest the family contact a SIDS support group

OB/GYN EMERGENCIES

Vaginal Hemorrhage 0-1

PRIORITIES

ABCs

If pregnant, determine due date

Determine the degree of distress, estimate amount of blood loss

Assure an advanced life support response

Shock/Impending Shock

Profuse vaginal bleeding, signs of shock.

1. Ensure a patent airway (Suction as necessary)
2. Be prepared to support ventilation with appropriate airway adjuncts
3. **OXYGEN** therapy - Begin oxygen at 10 liters/minute by mask. DO NOT withhold oxygen from a patient in cardiorespiratory distress because of a history of COPD
4. Place patient on left side if pregnant.
5. Monitor vitals signs frequently
6. See SHOCK (Non-Traumatic) for systolic pressure < 90 or heart rate > 120
7. Consider:
 - ➡ placement of dressing or pad at vaginal opening
 - ➡ if newly delivered baby, place baby to breast and massage fundus

OB/GYN EMERGENCIES

Imminent Delivery (Normal) O-3

PRIORITIES

ABCs

If pregnant, determine due date

Determine the degree of distress, estimate amount of blood loss

Assure an advanced life support response

Imminent Deliver, Normal Presentation

Regular contractions, bloody show, low back pain, feels like bearing down, crowning.

1. Prepare patient for home delivery. Reassure mother, instruct during delivery
2. Prepare delivery kit, wash hands and put on gloves, drape patient
3. Prevent explosive delivery of head by directing mothers respirations and slight counter pressure on the baby's head
4. When the head is delivered, check neck for umbilical cord and if present remove it from around neck. If the cord cannot be removed, clamp in two places and cut between the two clamps. Exercise extreme caution, blunt end scissors recommended for cutting cord.
5. Suction nose and mouth of infant x 2.
6. Ease delivery of upper and lower shoulder by gentle directional traction
7. Lay baby at or below level of mother until cord is clamped. Suction airway and dry infant. Keep the baby warm, be sure to wrap the head. Double clamp the cord 8-10 inches from the infant and cut cord. Check carefully for bleeding. If bleeding occurs, re-clamp cord or tie cord closer to infant.
8. Placenta may deliver prior to transport. **Do not pull on the cord.** Place placenta in a plastic bag and retain.
9. Observe mother and infant frequently for complications. Upper uterine massage and/or allowing the child to nurse will cause the uterus to contract and decrease the post-partum bleeding. Prepare mother and infant for transport. Keep infant warm.
10. If bleeding excessively see **VAGINAL HEMORRHAGE**
11. Transport to hospital via EMS ASAP

APGAR CHART	0	1	2
Appearance	Blue-Pale	Body Pink limbs Blue	Pink All Over
Pulse	0	< 100	100 >
Grimace	No Response	Grimace	Cough, Cry, Sneeze
Activity	Flaccid	Some Flexion	Active Movement
Respiratory	Effort Absent	Slow, Irregular	Strongly Crying

Calculate at 1 and 5 minutes after birth

OB/GYN EMERGENCIES

Imminent Delivery (Complications) O-4

PRIORITIES

ABCs

If pregnant, determine due date

Determine the degree of distress, estimate amount of blood loss

Assure an advanced life support response

Breech Presentation

Presentation of buttocks or feet.

1. **OXYGEN** therapy - Begin oxygen at 6 liters/minute by nasal cannula or 10 liters/minute by mask. If there is a history of COPD, observe for respiratory depression and support respirations as needed. DO NOT withhold oxygen from a patient in cardiorespiratory distress because of a history of COPD
2. Allow delivery to proceed passively until the baby's waist appears
3. If the head does not readily deliver in 4-6 minutes, insert a gloved hand into the vagina to create an air passage for the infant
4. Monitor mother's vital signs frequently, keep mother and infant warm

Prolapsed Cord

Cord presents first and is compressed during delivery compromising infant circulation.

1. **OXYGEN** therapy - Begin oxygen at 6 liters/minute by nasal cannula or 10 liters/minute by mask. If there is a history of COPD, observe for respiratory depression and support respirations as needed. DO NOT withhold oxygen from a patient in cardiorespiratory distress because of a history of COPD
2. Insert gloved hand into vagina and gently push presenting part off the cord. Do not attempt to reposition the cord. Cover cord with saline soaked gauze.
3. Place mother in head down, lower than legs position with hips elevated
4. Monitor mother's vital signs frequently, keep mother and infant warm

ENVIRONMENTAL EMERGENCIES

Heat Illness/Hyperthermia E-1

PRIORITIES

ABCs

Remove from offending environment if possible initiate immediate cooling as appropriate

Assure an advanced life support response

Determine degree of distress, identify nature of illness or injury

Heat Cramps/Heat Exhaustion

Cramping of the most worked muscles following replacement of exertion induced fluid losses (sweating) with water. Exhaustion, vague, flu-like symptoms, normal to slightly elevated body temperature, normal mental status.

1. Ensure a patent airway, suction as needed
2. Be prepared to support ventilation with appropriate airway adjuncts
3. **OXYGEN** therapy - Begin oxygen at 6 liters/minute by nasal cannula or 10 liters/minute by mask. DO NOT withhold oxygen from a patient in cardiorespiratory distress because of a history of COPD
4. Move patient to a cool environment
5. Suspect heat stroke in any patient with an altered level of consciousness in a hot environment or any patient with hot dry skin

Heat Stroke

Triad of exposure to heat stress, altered level of consciousness and elevated body temperature (usually 104° or 40°C) often associated with absence of sweating, tachycardia and hypotension.

1. Ensure a patent airway, suction as needed
2. Be prepared to support ventilation with appropriate airway adjuncts
3. **OXYGEN** therapy - Begin oxygen at 6 liters/minute by nasal cannula or 10 liters/minute by mask. DO NOT withhold oxygen from a patient in cardiorespiratory distress because of a history of COPD
4. Move patient to a cool environment and begin rapid cooling measures:
 - ➡ Remove clothing and splash/sponge with water
 - ➡ Place cool packs on neck and in armpits and groin areas
 - ➡ Promote cooling by fanning
 - ➡ Apply cool wet sheets
5. Be prepared for possible seizures

ENVIRONMENTAL EMERGENCIES

Hypothermia/Frostbite E-2

PRIORITIES

ABCs

Remove from offending environment if possible

Assure an advanced life support response

Determine degree of distress, identify nature of illness or injury

Moderate Hypothermia

Body temperature may be (84-95 F), patient is conscious and shivering but lethargic; skin pale and cold.

1. Ensure a patent airway, suction as needed
2. Be prepared to support ventilation with appropriate airway adjuncts
3. **OXYGEN** therapy - Begin oxygen at 6 liters/minute by nasal cannula or 10 liters/minute by mask. DO NOT withhold oxygen from a patient in cardiorespiratory distress because of a history of COPD
4. Gently move to sheltered area minimizing physical exertion or movement of the patient
5. Cut away wet clothing and cover patient with warm, dry sheets or blankets
6. Monitor vital signs frequently

Severe Hypothermia

Body temperature may be 84 F or less; patient is stuporous or comatose; dilated pupils; hypotensive; slow pulse to pulseless; slowed to absent respirations.

1. Handle gently but ensure airway
2. **OXYGEN** therapy. Be prepared to support ventilation with appropriate airway adjuncts. If spontaneous respirations are present, support ventilations with appropriate adjuncts. Ventilate using warm, humidified OXYGEN if available. Avoid hyperventilating the patient
3. Cut away all wet clothing and wrap in dry blankets. DO NOT apply an external heat source.
4. Move gently. Rough handling may precipitate cardiac arrest.
5. NOTE: Severe hypothermia patients may appear dead. When in doubt, do CPR.

ENVIRONMENTAL EMERGENCIES

Hypothermia/Frostbite E-2 (cont.)

Frostbite

Areas of skin that are white, numb or burning; soft to touch but do not re-color with touch.

1. Evaluate and treat HYPOTHERMIA
2. Move to warm environment and wrap affected extremity with thick, warmed blankets or clothing. Do NOT rub or otherwise attempt active re-warming
3. Monitor vital signs frequently
4. Consider:
 - ➡ Protect injured areas from pressure, trauma, and friction
 - ➡ Do not rub or break blisters
 - ➡ Place gauze between toes and fingers
 - ➡ Do not allow to refreeze
 - ➡ Gradually warm extremities
 - ➡ Restrict movement of extremities. Do not allow patient to walk if feet involved
 - ➡ Keep patient warm but not overheated

ENVIRONMENTAL EMERGENCIES

Envenomation E-3

PRIORITIES

ABCs

Keep patient calm; determine degree of distress

Do not apply ice

Accurate description of snake, spider, insect, etc.

Assure an advanced life support response

Attempt to initiate prompt transport when available

Poisonous Bites and Stings (Basic Therapy)

1. Ensure a patent airway, suction as needed
2. Be prepared to support ventilation with appropriate airway adjuncts
3. **OXYGEN** therapy - Begin oxygen at 6 liters/minute by nasal cannula or 10 liters/minute by mask.
4. Identify source of injury. If it can be safely handled, consider bringing to hospital
5. Monitor vital signs frequently
6. Remove rings, bracelets, or other constricting items on bitten extremity
7. If exhibiting signs of allergic reaction or shock treat per **ANAPHYLAXIS**
8. Attempt to keep affected area below the level of the heart

Bees/Wasps

1. Remove stinger by scraping it off skin. Do not squeeze stinger
2. Apply cold packs

ENVIRONMENTAL EMERGENCIES

Envenomation E-3

Snake Bites

1. Apply constricting band one inch above fang marks. Band should not be so tight that a finger can't fit under band. Pulses below bite should remain intact.
2. Avoid excessive movement of the affected extremity, keeping it in neutral position relative to the heart.
3. Circle the affected area of the skin, noting the time on the skin as well
4. Do not cut skin or apply ice
5. Monitor distal pulses

Spider Bites/Scorpion Stings

1. Apply cold packs to affected area
2. Avoid excessive movement keeping the affected extremity below the level of the heart

ENVIRONMENTAL EMERGENCIES

Burns E-4

PRIORITIES

ABCs

Assume airway/respiratory involvement in chemical burns and fires in enclosed spaces

Stop the burning process

Search for associated injuries

Assure an advanced life support response

Burns

Damage to the skin caused by contact with caustic material (chemical burns), electricity or fire. Second or third degree burns involving 20% of the body surface area or those associated with respiratory involvement, hands, feet, groin area or circumferential are considered major burns.

1. Keeping safety in mind, remove patient to a safe area
2. Ensure patent airway
3. Stop the burning process: Remove contact with agent unless adherent (e.g. hot tar). Brush off chemical powders then flush copiously with cool water.
4. **OXYGEN** - high flow. Be prepared to support ventilation with appropriate airway adjuncts
5. Protect the burned area:
 - ➡ Do not break blisters
 - ➡ Cover with clean dressings or sheets
 - ➡ Remove restrictive clothing/jewelry
 - ➡ Do not remove adherent materials. Cool the material with water
6. Consider:
 - ➡ Assess for associated injuries
 - ➡ Field burn treatments are associated with hypothermia, monitor the patient for associated signs and symptoms
 - ➡ Chemical Burns
 - Flush immediately with copious amounts of water (up to 20 minutes as needed)
 - If chemical is dry, brush off. Remove clothes and then flush with water
 - Identify the chemical
 - Look for associated respiratory burns
 - ➡ Electrical Burns
 - Turn off power source of electricity if still in contact with patient
 - Assess the entrance and exit wounds, cover with sterile dressings
 - ➡ Tar Burns
 - Initially cool with water, maintain body temperature after primary cooling measures
 - Do not attempt to remove tar

ENVIRONMENTAL EMERGENCIES

Drowning/Near Drowning E-5

PRIORITIES

ABCs
Administer high flow oxygen
Protect C-Spine
Minimize time at scene
Full arrest should be stabilized at scene
Assure advanced life support response
Consider associated trauma to C-Spine

Drowning

Loss of consciousness in water, now in full arrest.

1. Treat as **CARDIOPULMONARY ARREST**, with consider for hypothermia and spinal precautions

Near Drowning

Loss of consciousness in water, not in full arrest.

1. Ensure a patent airway (Suction as necessary)
2. Be prepared to support ventilations with appropriate airway adjuncts and oxygen therapy as appropriate
3. Protect the cervical spine if neck injury suspected
4. Anticipate vomiting. Take precautions against aspiration, be prepared for suctioning
5. Remove wet clothing; keep patient warm and dry
6. Monitor vital signs frequently

BEHAVIORAL EMERGENCIES

Crisis B-1

PRIORITIES

ABCs

Assure an advanced life support response

Determine causes of the reactions and attempt to rule out physiological reasons for patient's behavior, e.g. depression, diabetes, fever, drug use daily medications, etc.

Record physiological and psychological findings

Transport when assured the patient can be safely contained in the ambulance

Acute Stress Reaction

Unruly, irrational behavior that may be caused by psychiatric illness, organic illness (such as hypoglycemia and hypoperfusion states), withdrawal or intoxicant states.

1. Protect yourself and others. Never try to subdue a patient forcibly without adequate help (at least four people, from law enforcement, other rescuers, etc.)
2. One rescuer must assume control of the situation to minimize confusion on the part of the patients and rescuers alike.
3. Speak in a calm but firm voice moving slowly when approaching and caring for patient.
4. Assess and treat life-threatening illnesses and injuries per specific treatment guidelines. If patient refuses care and transport consider obtaining 5150 hold from law enforcement agency with jurisdiction.

BEHAVIORAL EMERGENCIES

Assault Victim B-2

PRIORITIES

ABCs

Assess and treat as trauma patient first; ensure a patent airway taking spinal precautions

Assure an advanced life support response

Provide emotional support for both the victim and family and friends if present

Land line communications with Base Hospital are preferable

Child Abuse/Sexual Assault

Minor victim of physical abuse or victim (adult or child) of non-consensual sexual activity.

1. Assess for and treat any associated injuries or illnesses per specific treatment guidelines
2. Provide reassurance and emotional support. Contact law enforcement.
3. Encourage patient to be transported to designated sexual assault treatment center if condition allows.
Discourage bathing, washing, urination/defecation or changing clothes, in cooperation with law enforcement.

TRAUMATIC EMERGENCIES

Traumatic Shock T-1

PRIORITIES: LOAD AND GO PROTOCOL FOR AMBULANCE

Assure an advanced life support response

Assist EMS transport unit with rapid extrication and packaging for rapid transport

Secondary survey enroute and/or when transport is available

Suspected C-Spine injury requires careful management, adequate airway is a prime responsibility

Details of mechanism of injury

Traumatic Shock

Signs and symptoms of shock due to traumatic injury.

1. Airway Management/Support with Spinal immobilization/Precautions:
 - Simplest effective method (basic airway management) with in-line cervical immobilization
 - Consider airway techniques with in-line cervical immobilization - DO NOT APPLY TRACTION
 - Immobilization of the cervical spine and the body to the backboard
2. Be prepared to support ventilations with appropriate airway adjuncts and oxygen therapy as appropriate
3. Oxygen therapy - Begin oxygen at 10 liters/minute by mask. DO NOT withhold oxygen from a patient in cardiorespiratory distress because of a history of COPD
4. Lay patient flat and elevate legs
5. Keep patient warm, not overheated
6. Place splints, apply dressing and pressure to active bleeding sites
7. Reassess patient vital signs
8. Give nothing by mouth
9. Monitor vital signs frequently

TRAUMATIC EMERGENCIES

Traumatic Arrest T-2

PRIORITIES

Assure an advanced life support response

Begin CPR

Airway management/support with spinal precautions

Transport as soon as an ambulance is available

Transport with CPR in progress

Cardiopulmonary Arrest due to Traumatic Injury

1. Basic CPR
2. Airway Management/Support with Spinal immobilization/Precautions:
 - ➡ Simplest effective method (basic airway management) with in-line cervical immobilization - DO NOT APPLY TRACTION.
 - ➡ Immobilization of the cervical/thoracic/lumbar spine with the body secured to the backboard.
3. Support ventilations with appropriate airway adjuncts and oxygen therapy.
4. Initiate transport as soon as possible.

TRAUMATIC EMERGENCIES

Head and Neck Trauma T-3

PRIORITIES

ABCs

Identify airway compromise/obstruction, respiratory insufficiency/arrest, active bleeding, shock, altered mental status and initiate appropriate management

Protect the cervical spine regardless of neurologic impairment or patient mobility

Assure advanced life support response

As with all traumatically injured patients, transport per LOAD AND GO Procedure with special considerations.

Head Trauma

1. Airway management must include in-line cervical immobilization of the neck
2. Support ventilations with appropriate airway adjuncts and oxygen therapy
3. Hyperventilate patients with altered level of consciousness
4. C-spine precautions include placing the patient supine with the head in the mid-line. It is not usually appropriate to leave a potential cervical neck-injured patient "as he lies" - DO NOT APPLY TRACTION
5. Consider
 - Control face and head bleeding with direct pressure. Utilize extreme caution with potential skull fractures
 - Facial Trauma - As with all traumatically injured patients, may require transport per LOAD AND GO procedure with special considerations for airway
 - Check the mouth for loose teeth and dentures
 - Frequent airway suctioning as needed to prevent aspiration of blood, etc.
 - Avoid applying direct pressure to an injured eye. Do not attempt to replace the partially torn globe - stabilize it in place with a saline soaked gauze
 - DO NOT assume alcohol intoxication as primary cause. All persons with altered level of consciousness associated with trauma require treatment and transport to a medical facility where the patient can receive a complete medical examination.

Neck Trauma

1. Airway management must include in-line cervical immobilization of the neck
2. Support ventilations with appropriate airway adjuncts and oxygen therapy and in-line cervical immobilization of the neck - DO NOT APPLY TRACTION

TRAUMATIC EMERGENCIES

Chest Trauma T-4

PRIORITIES

ABCs

Assume the most serious consequence until proven otherwise

Chest trauma patients should be considered LOAD AND GO - by TRAUMA Protocol

Assure an advanced life support response

As with all traumatically injured patients transport per LOAD AND GO Procedure with special considerations.

General Treatment Guidelines

1. Begin oxygen at 10L/min. by mask. Do not withhold oxygen from a patient in respiratory distress because of a history of COPD

Impaled Object

1. Attempt to stabilize the object with bulky dressings. Do not remove unless object interferes with CPR (Consult Base Hospital Physician or ALS unit staff as soon as possible)

Flail Chest

Blunt trauma to the chest resulting in an unstable segment of bones that move opposite to normal respirations.

1. Consider mechanism of injury. Encourage the patient to take deep breaths.
2. If lateral flail chest, multi-rib fractures, and absent breath sounds, lie patient on injured side. Otherwise, immobilize flail chest with thick dressing. DO NOT use ace wraps around the chest.
3. Be prepared to support ventilations with appropriate airway adjuncts

Open Chest Wound

Penetrating wound to chest wall.

1. Cover wound with vaseline gauze or plastic (if vaseline gauze not available) and tape on three sides.
2. If signs of increasing shortness of breath occurs remove dressing to allow air to escape.

TRAUMATIC EMERGENCIES

Abdominal Trauma T-5

PRIORITIES

ABCs

Any penetrating injury - handle as if abdominal cavity penetrated

Check for exit wounds

Ensure advanced life support response

As with all traumatically injured patients, transport per LOAD AND GO Procedure with special considerations.

General Treatment Guidelines

1. Begin oxygen at 10L/min. by mask. Do not withhold oxygen from a patient in respiratory distress because of a history of COPD
2. Nothing by mouth
3. Do not allow the patient to move
4. Anticipate vomiting and shock
5. If needed see **TRAUMATIC SHOCK**

Impaled Object

1. Attempt to stabilize the object with bulky dressings. Do not remove unless object interferes with CPR (Consult Base Hospital Physician or ALS unit staff as soon as possible)

Eviscerating Trauma

1. Cover eviscerated organs with sterile saline soaked dressings and firm bandage
2. Do not replace organs into abdominal cavity

Genital Injury

1. Cover genitals with sterile saline soaked gauze
2. Treat amputated parts per **EXTREMITY AMPUTATIONS**
3. Apply direct pressure to brisk bleeding

TRAUMATIC EMERGENCIES

Extremity Trauma T-6

PRIORITIES

ABCs

Determine base line sensory and motor function/deficits prior to skeletal stabilization/splinting

Determine if patient's injury(s), history, mechanism of injury requires LOAD AND GO activities on arrival of the ambulance

Assure an advanced life support response

As with all traumatically injured patients, transport per LOAD AND GO Procedure with special considerations.

Extremity Trauma General Guidelines

1. Return to anatomical position if possible as resistance/pain allows
2. Apply splints and check circulation, motion, and sensation after each manipulation and periodically thereafter
3. Control bleeding with direct pressure
4. Cover open fractures with sterile saline soaked gauze
5. Splint all dislocations (joint injuries) in position found and transport as soon as possible
6. Apply sling, swathe or traction splint device or backboard where applicable

Amputations

As with all traumatically injured patients, transport per LOAD AND GO Procedure with special considerations.

1. Care of the amputated extremity
 - ➡ If partial amputation, splint in anatomic position and elevate the extremity, apply direct pressure to control severe bleeding
 - ➡ If the part is completely amputated, place the amputated part in sterile dry container or bag. Seal or tie off the bag if possible. Place in a second container or bag if possible and seal or tie off. Place on ice if available. DO NOT place part directly on ice or in water. Elevate the extremity involved and dress in dry gauze

TRAUMATIC EMERGENCIES

Soft Tissue Trauma T-7

PRIORITIES

ABCs

Treat life threatening injuries first

Determine base line sensory and motor function/deficits prior to dressing

Look for underlying injuries

**Determine if patient's injury(s), history, mechanism of injury requires LOAD AND GO activities
on arrival of the ambulance**

Assure an advanced life support response

Soft Tissue Injuries

1. Stop bleeding
 - ➡ Direct pressure
 - ➡ Elevate injured part
 - ➡ Pressure points
 - ➡ Use tourniquet ONLY as a last resort and then only to control hemorrhage
2. Apply sterile dressing to open wounds
3. Bandage
4. Treat for shock as indicated
5. Assess function distal to injuries (pulse, color, sensation, and motion)
6. Consider C-spine immobilization for all injuries above the clavicles
7. Do not remove impaled objects

TRAUMATIC EMERGENCIES

Eye Injuries T-8

PRIORITIES

ABCs

Treat life threatening injuries first

Determine base line sensory and motor function/deficits prior to dressing

Look for underlying injuries

Determine if patient's injury(s), history, mechanism of injury requires LOAD AND GO activities on arrival of the ambulance

Assure an advanced life support response

Administer Oxygen to patient with injuries

Chemical Burns (Acid or Alkali)

1. Immediately irrigate profusely with water or normal saline on all chemical injuries (Check for and remove contacts)
2. Avoid contaminating the other eye
3. Care should be taken to avoid self contamination
4. Assess and monitor respiratory status for possible inhalation exposure of noxious fumes or chemicals

Eye Trauma

1. Cover both eyes loosely with no pressure to the globe
2. Position patient, sitting up if comfortable
3. Impaled objects should be stabilized and NOT removed
4. If foreign bodies are embedded in the eye, cover both eyes
5. Assess for potential head and/or c-spine injury if mechanism of injury exists

DISASTER INCIDENTS

Multiple Casualty (Triage Guidelines) D1

PRIORITIES

Establish order

Summon additional resources as appropriate, notify authorities of nature and extent of disaster

Notify disaster control facility

Patient triage

Patient transport

Transport the most critically ill

Re-assessment of remaining patients

1. ESTABLISH ORDER

- a. Initiate incident command system
- b. Overall scene command is under the direction of the Incident Commander. Medical scene control is under the direction of the Medical Group Supervisor
- c. Ensure the safety of the scene, rescuers and bystanders
- d. Identify a Triage Officer and begin triage
- e. The Medical Group Supervisor will notify disaster control facility of location, level of incident and number of victims

2. TRIAGE

- a. Perform a Primary Survey on all patients using S.T.A.R.T. method of triage. Treatment during this process shall be confined to opening the airway and controlling serious hemorrhage
- b. Based on the Primary Survey findings, prioritize casualties
 - ➡ **IMMEDIATE (Red)**
These patients are of the highest priority and are removed and treated first. They are the ones that may die within an hour if not treated rapidly. These patients may have altered level of consciousness, respirations less than 10/min or greater than 30/min and/or delayed capillary refill.
 - ➡ **DELAYED (Yellow)**
The patients falling into this category are those whose injuries are such that they may produce death after an hour, if not treated. These injuries are serious and need attention; however, treatment and removal may be delayed until the immediate patients have been transported. Examples may include burns, major multiple fractures and spinal injuries.

DISASTER INCIDENTS

Multiple Casualty (Triage Guidelines) D1

- MINOR (Formerly Walking Wounded) (Green)
The types of injuries in this category may have treatment delayed and are generally transported by some means other than ambulance. Examples may include minor fractures, lacerations with minimal blood loss, rib fractures without breathing difficulty and minor burns.
- D.O.A./Non-Resuscitatable (Black)
These patients are already dead or so severely injured that death is certain within a short time, regardless of treatment given.

- c. Tag patients according to priority and, if needed, gather into treatment areas by priority.
3. TREATMENT - Begin treatment of casualties as necessary, immediate priority first, delayed second and so on, in accordance with specific treatment guidelines. NOTE: Do not delay transport of immediates.
4. ADDITIONAL RESOURCES - As the needs for additional manpower and equipment become evident, those need should be communicated to the Incident Commander.
5. TRANSPORT - the most critically ill first. Others may be transported as indicated by severity, available equipment, and manpower.
6. RE-ASSESSMENT OF REMAINING PATIENTS - As patients are triaged, treated and transported, re-assessment of those who remain is carried out. Re-triage based on new findings may be necessary.

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BASIC LIFE SUPPORT TREATMENT PROTOCOLS

DRAFT